

What is claimed is:

1. A thermoplastic polymer blend, comprising:
 - (a) a polyamide;
 - 5 (b) a polyphenylene ether;
 - (c) a tri-block copolymer of an aromatic monomer, an olefin monomer, and an alkyl (meth)acrylate monomer; and
 - (d) a compatibilizing polymer containing a dicarboxylic acid anhydride functionality, optionally formed in-situ with a portion of the
 - 10 polyphenylene ether.
2. The blend of Claim 1, wherein the polyphenylene ether is in a blend with polystyrene.
- 15 3. The blend of Claim 2, wherein the polyamide is polyamide 6,6 and the polystyrene is high-impact polystyrene.
4. The blend of Claim 3, wherein the tri-block copolymer is styrene-butadiene-methylmethacrylate.
- 20 5. The blend of Claim 4, wherein the polyamide ranges from about 30 to about 50 weight percent of the blend, wherein the polyphenylene ether/polystyrene blend ranges from about 30 to about 50 weight percent of the blend.
- 25 6. The blend of Claim 5, wherein the amount of triblock copolymer ranges from about 3 to about 25 weight percent of the blend.

7. The blend of Claim 1, wherein the compatibilizing polymer is the in-situ reaction product of polyphenylene ether with one or more aliphatic polycarboxylic acids or derivatives thereof represented by the formula:



wherein R is a linear or branched chain, saturated aliphatic hydrocarbon of from 2 to 20 carbon atoms; R^I is selected from the group consisting of hydrogen, and alkyl, aryl, acyl and carbonyl dioxy groups having from 1 to 10 carbon atoms; each R^{II} is independently selected from the group consisting of hydrogen, and alkyl or aryl groups having from 1 to 20 carbon atoms; each R^{III} and R^{IV} is independently selected from the group consisting of hydrogen, and alkyl or aryl groups having from 1 to 10 carbon atoms; m is equal to 1 and (n+s) is greater than or equal to 2, and n and s are each greater than or equal to 0; wherein (OR^I) is alpha or beta to a carbonyl group and at least 2 carbonyl groups are separated by 2 to 6 carbon atoms.

8. The blend of any of Claims 1-7, further comprising a styrenic block copolymer.

9. The blend of any of Claims 1-7, further comprising optional additives selected from the group consisting of slip agents, antiblocking agents, antioxidants, ultraviolet light stabilizers, quenchers, dyes and pigments, plasticizers, mold release agents, lubricants, antistatic agents, fire retardants, fillers, and combinations thereof.

10. The blend of Claim 9, wherein the fillers comprise glass fibers, talc, chalk, or clay.

11. The blend of Claim 10, wherein the clay is a nanoclay.

12. The blend of Claim 11, wherein the clay is pre-dispersed in amide monomer before polymerization of the polyamide.

5 13. The blend of Claim 1, wherein the polyamide comprises a continuous matrix, wherein the polystyrene comprises dispersed regions within the matrix, wherein the tri-block copolymer comprises dispersed regions within the polystyrene, and wherein the compatibilizing polymer is reacted to polyamide at interfaces between the polyamide continuous matrix and the
10 dispersed regions of the polystyrene.

 14. The blend of Claim 2, wherein the polyamide comprises a continuous matrix, wherein the blend of polystyrene and polyphenylene ether comprises dispersed regions within the matrix, wherein the tri-block copolymer
15 comprises dispersed regions within the blend of polystyrene and polyphenylene ether, and wherein the compatibilizing polymer is reacted to polyamide at interfaces between the polyamide continuous matrix and the dispersed regions of the blend of polystyrene and polyphenylene ether.

20 15. An article made from the blend of Claim 1 or Claim 13.

 16. An article made from the blend of Claim 2 or Claim 14.

 17. The article according to Claim 15, wherein the article is made by
25 extrusion or molding techniques.

 18. The article according to Claim 15, wherein the article is selected from the group consisting of a transportation-related item, electrical equipment, and consumer appliance housings and containers.

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